

System Check_Head_5750MHz

DUT: D5GHzV2 - SN:1113

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: HSL_5000 Medium parameters used: $f = 5750$ MHz; $\sigma = 5.137$ S/m; $\epsilon_r = 35.513$; $\rho = 1000$ kg/m³

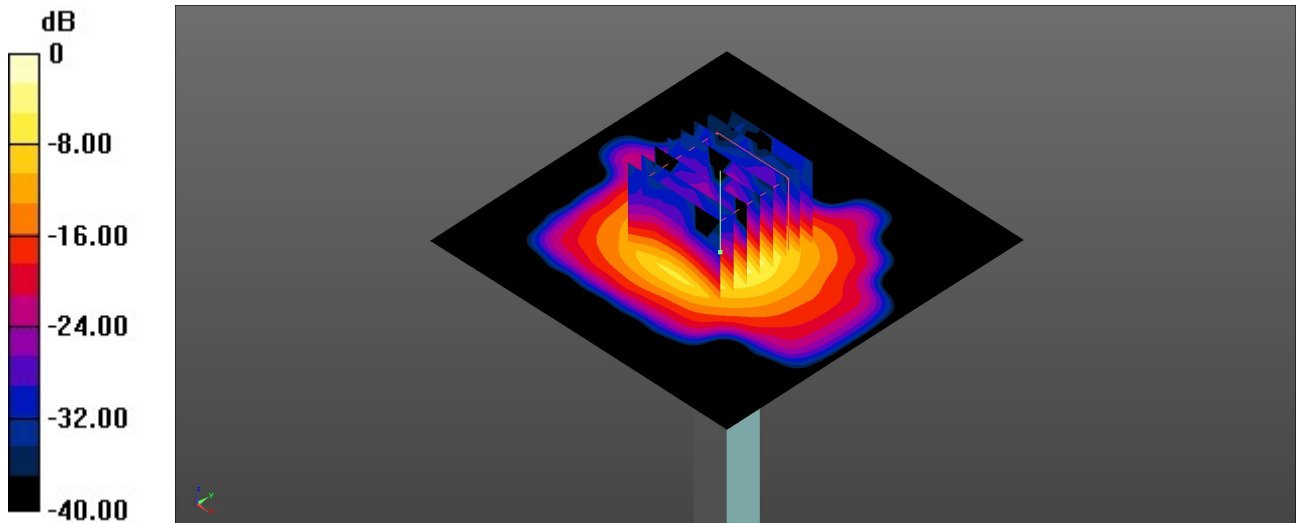
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(4.92, 4.92, 4.92); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=50mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 7.87 W/kg

Pin=50mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 40.81 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 15.3 W/kg
SAR(1 g) = 3.74 W/kg; SAR(10 g) = 1.09 W/kg
Maximum value of SAR (measured) = 8.68 W/kg



0 dB = 8.68 W/kg = 9.39 dBW/kg



Appendix B. Plots of SAR Measurement

The plots are shown as follows.

01_GSM850_GPRS (4 Tx slots)_Bottom Face_0mm_Ch251

Communication System: UID 0, GSM850 (0); Frequency: 848.8 MHz; Duty Cycle: 1:2.08

Medium: HSL_835 Medium parameters used: $f = 849$ MHz; $\sigma = 0.927$ S/m; $\epsilon_r = 40.837$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(9.18, 9.18, 9.18); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.51 W/kg

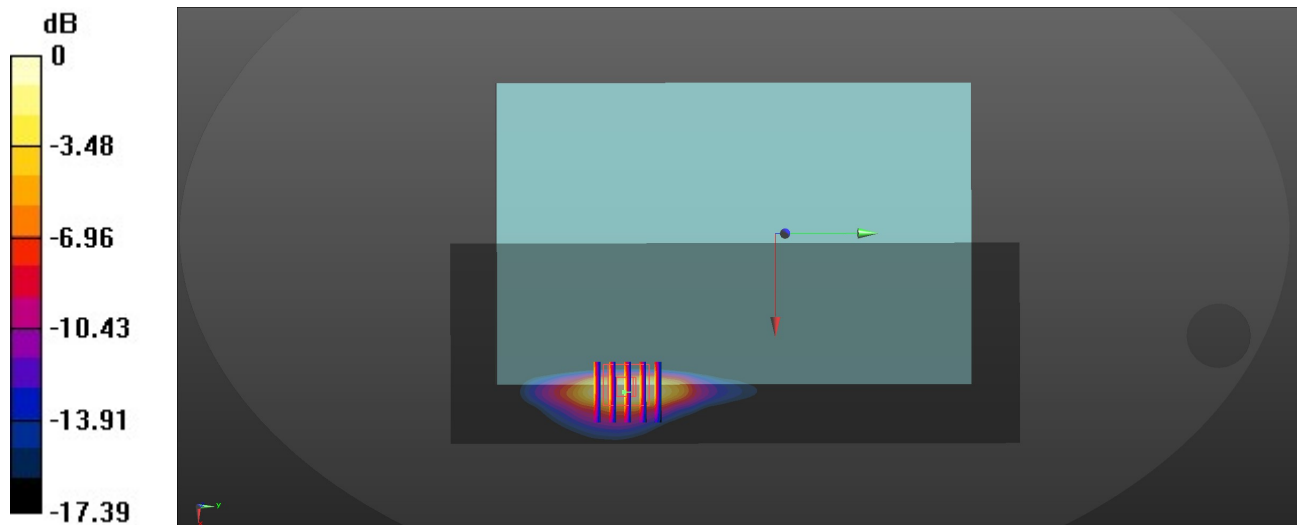
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.076 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.28 W/kg

SAR(1 g) = 0.907 W/kg; SAR(10 g) = 0.408 W/kg

Maximum value of SAR (measured) = 1.68 W/kg



0 dB = 1.68 W/kg = 2.25 dBW/kg

02_WCDMA V_RMC 12.2Kbps_Bottom Face_0mm_Ch4233

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL_835 Medium parameters used: $f = 847$ MHz; $\sigma = 0.926$ S/m; $\epsilon_r = 40.846$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(9.18, 9.18, 9.18); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.74 W/kg

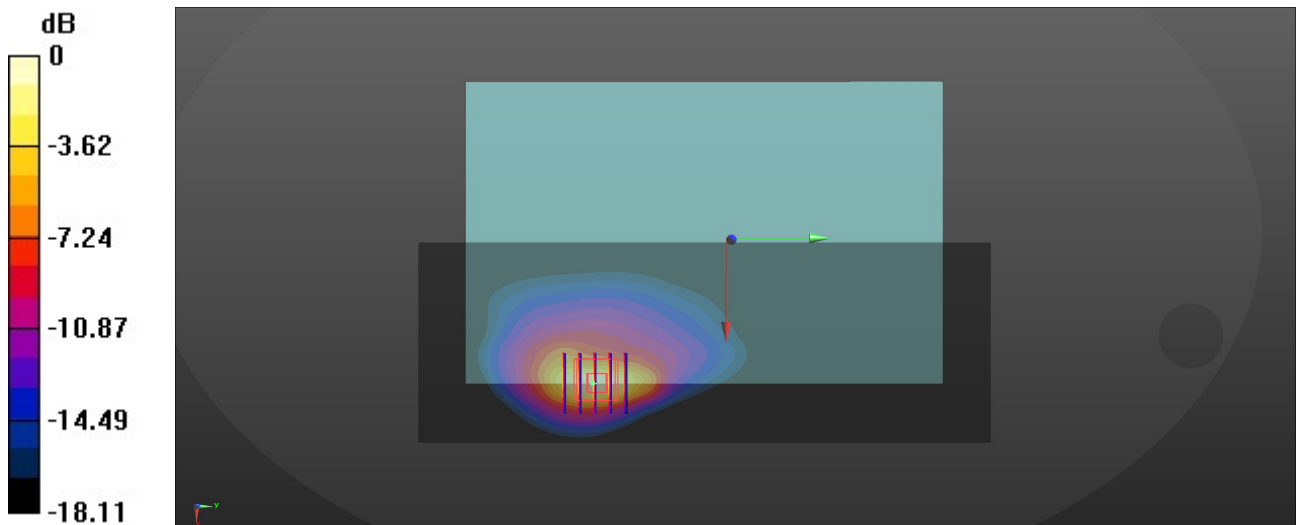
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.14 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.19 W/kg

SAR(1 g) = 0.811 W/kg; SAR(10 g) = 0.380 W/kg

Maximum value of SAR (measured) = 1.70 W/kg



0 dB = 1.70 W/kg = 2.30 dBW/kg

03_LTE Band 26_15M_QPSK_1RB_0Offset_Bottom Face_0mm_Ch26865

Communication System: UID 0, LTE-FDD (0); Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: $f = 831.5$ MHz; $\sigma = 0.92$ S/m; $\epsilon_r = 40.886$; $\rho = 1000$ kg/m³

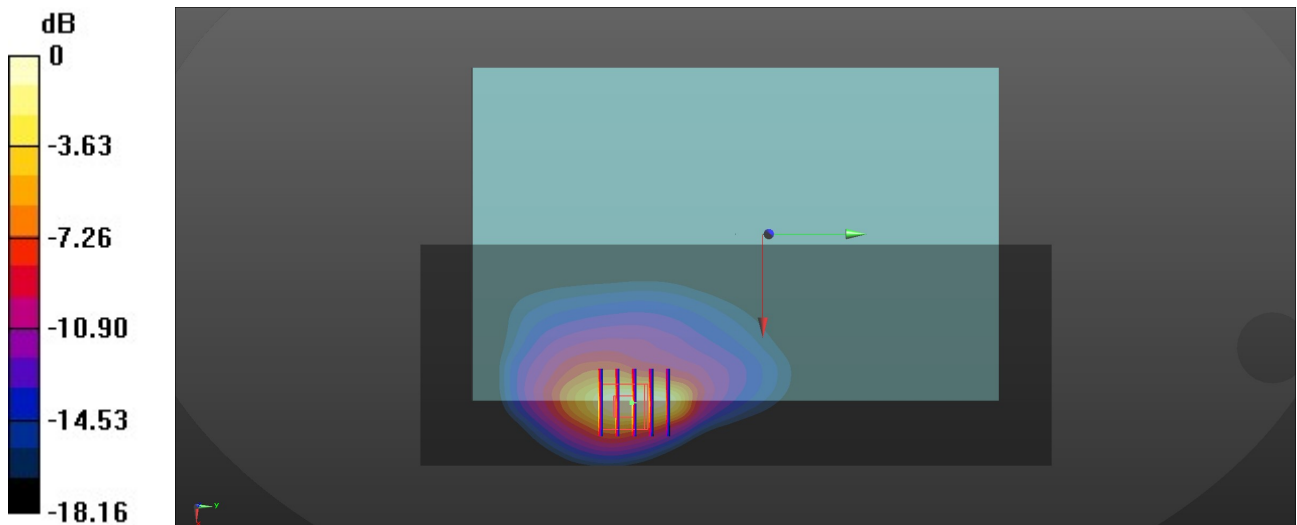
Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(9.18, 9.18, 9.18); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.70 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.41 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 2.22 W/kg
SAR(1 g) = 0.835 W/kg; SAR(10 g) = 0.390 W/kg
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 1.66 W/kg = 2.20 dBW/kg

04_LTE Band 4_20M_QPSK_1RB_0Offset_Edge 1_0mm_Ch20175

Communication System: UID 0, LTE-FDD (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium: HSL_1750 Medium parameters used: $f = 1733$ MHz; $\sigma = 1.332$ S/m; $\epsilon_r = 39.584$; $\rho = 1000$

kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(8.13, 8.13, 8.13); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.635 W/kg

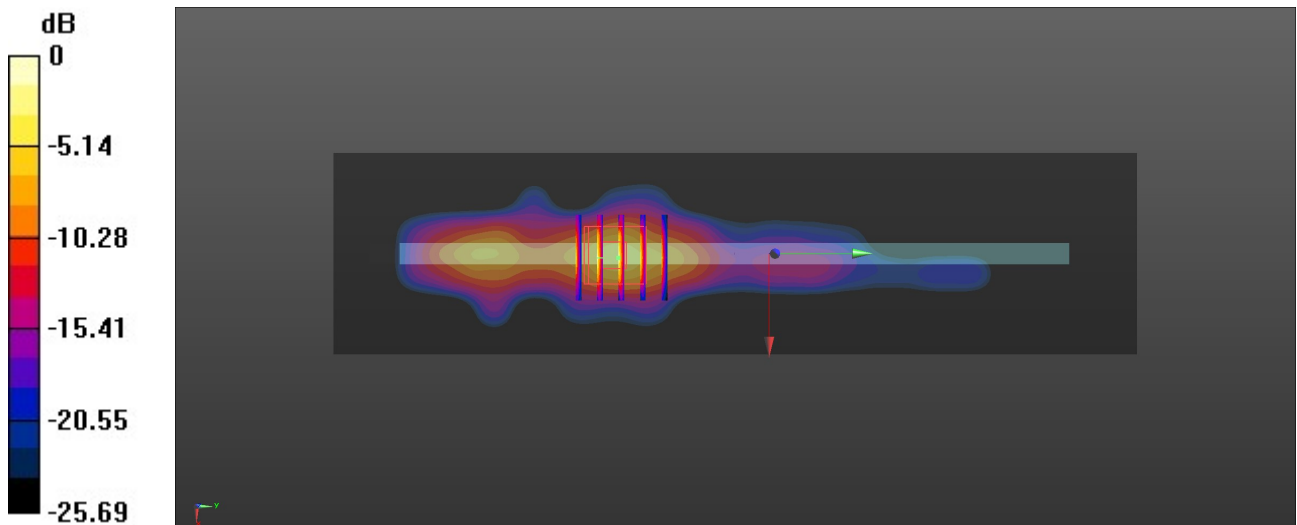
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 34.94 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 0.731 W/kg; SAR(10 g) = 0.271 W/kg

Maximum value of SAR (measured) = 1.50 W/kg



0 dB = 1.50 W/kg = 1.76 dBW/kg

05_GSM1900_GPRS (4 Tx slots)_Bottom Face_0mm_Ch810

Communication System: UID 0, PCS (0); Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: HSL_1900 Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.411$ S/m; $\epsilon_r = 39.345$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.86, 7.86, 7.86); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.27 W/kg

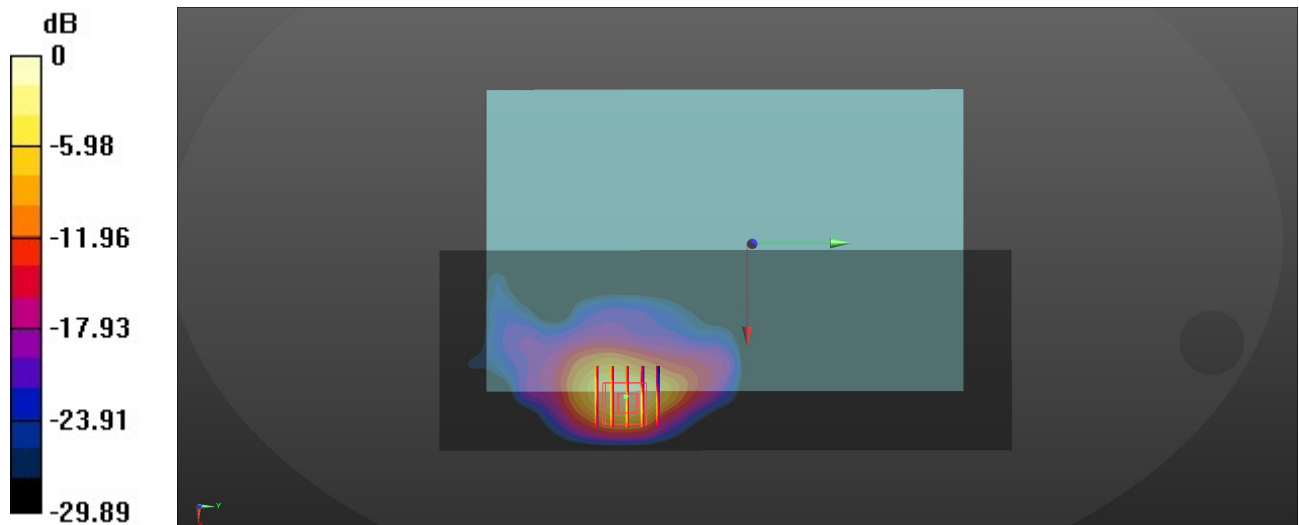
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.5000 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.00 W/kg

SAR(1 g) = 0.781 W/kg; SAR(10 g) = 0.316 W/kg

Maximum value of SAR (measured) = 1.44 W/kg



0 dB = 1.44 W/kg = 1.58 dBW/kg

06_WCDMA II_RMC 12.2Kbps_Bottom Face_0mm_Ch9400

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.396$ S/m; $\epsilon_r = 39.38$; $\rho = 1000$ kg/m³

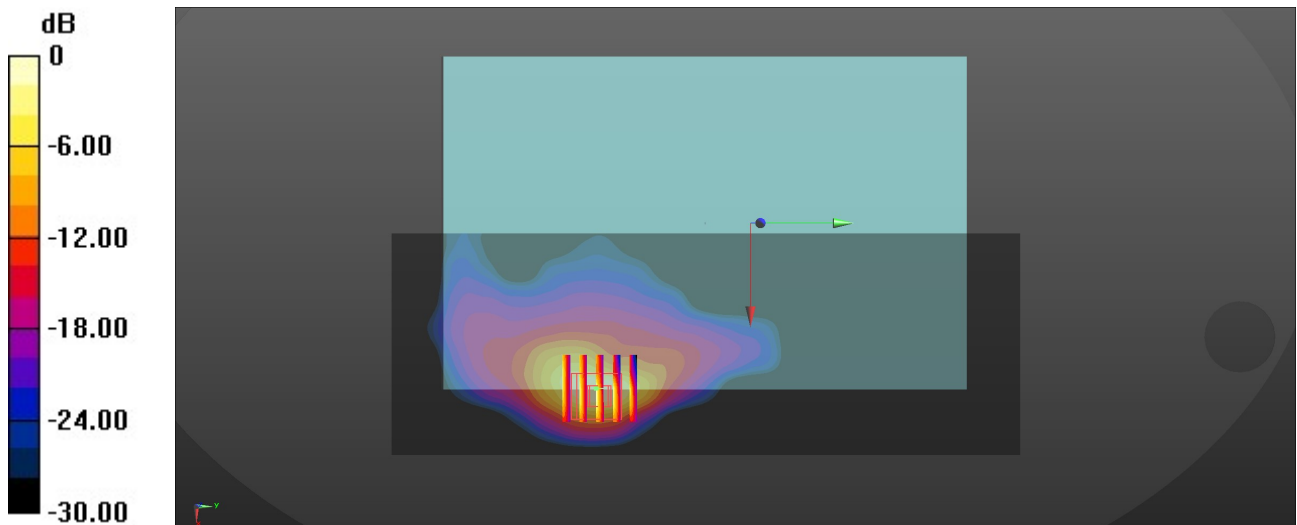
Ambient Temperature : 23.1 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.86, 7.86, 7.86); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.75 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.83 W/kg
SAR(1 g) = 0.735 W/kg; SAR(10 g) = 0.293 W/kg
Maximum value of SAR (measured) = 1.33 W/kg



0 dB = 1.33 W/kg = 1.24 dBW/kg

07_LTE Band 2_20M_QPSK_1RB_0Offset_Bottom Face_0mm_Ch18700

Communication System: UID 0, LTE-FDD (0); Frequency: 1860 MHz;Duty Cycle: 1:1

Medium: HSL_1900 Medium parameters used: $f = 1860$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 39.377$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.1 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.86, 7.86, 7.86); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (71x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.41 W/kg

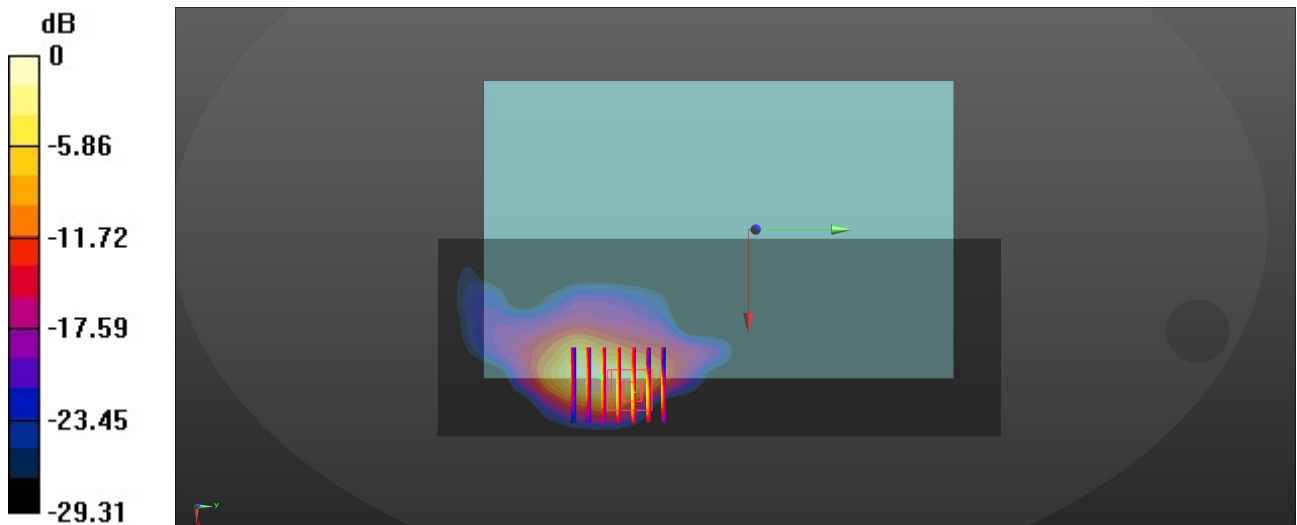
Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.08 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.626 W/kg; SAR(10 g) = 0.262 W/kg

Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

08_LTE Band 7_20M_QPSK_1RB_0Offset_Bottom Face_0mm_Ch21100

Communication System: UID 0, LTE-FDD (0); Frequency: 2535 MHz; Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: $f = 2535$ MHz; $\sigma = 1.866$ S/m; $\epsilon_r = 38.484$; $\rho = 1000$

kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.28, 7.28, 7.28); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x251x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.17 W/kg

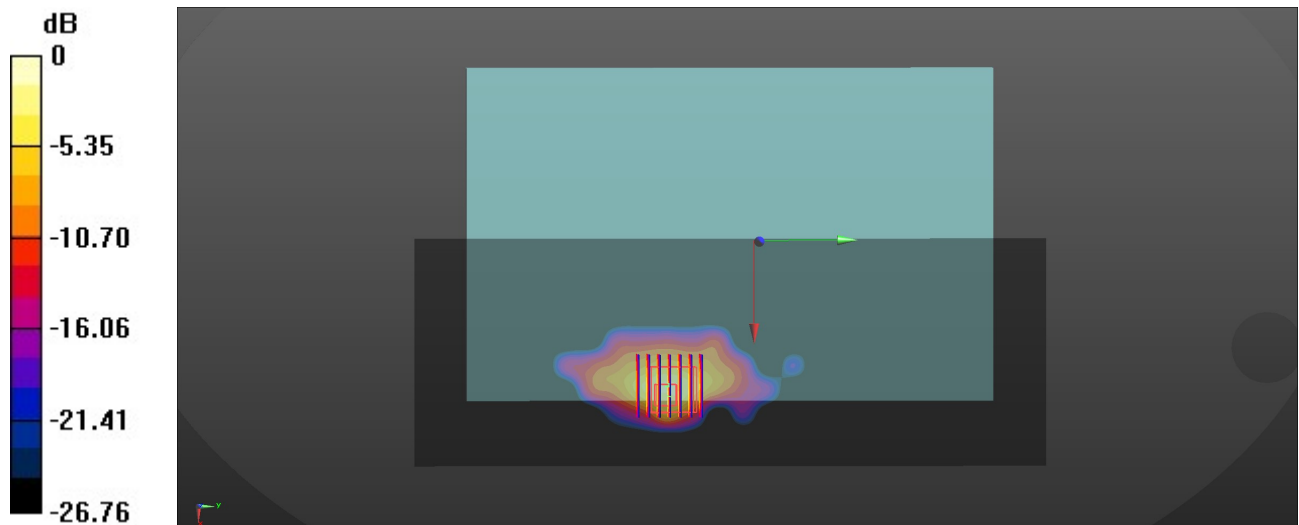
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.54 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 0.774 W/kg; SAR(10 g) = 0.302 W/kg

Maximum value of SAR (measured) = 1.62 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg

09_LTE Band 41_20M_QPSK_1RB_0Offset_Bottom Face_0mm_Ch40620

Communication System: UID 0, LTE-TDD (0); Frequency: 2593 MHz; Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: $f = 2593$ MHz; $\sigma = 1.915$ S/m; $\epsilon_r = 38.253$; $\rho = 1000$

kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.28, 7.28, 7.28); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x251x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.36 W/kg

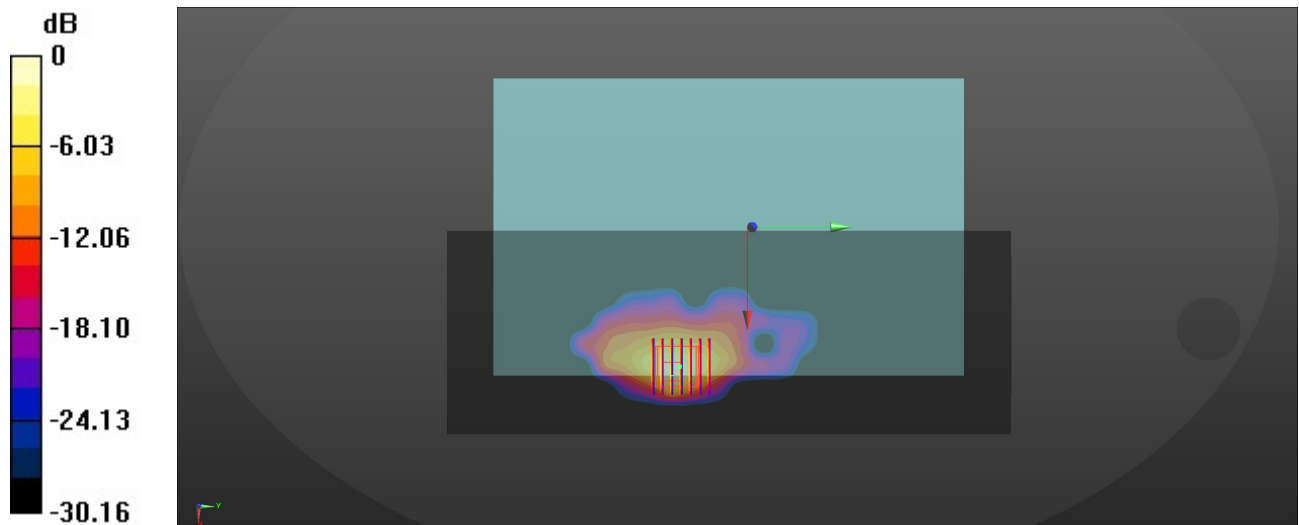
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.98 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.71 W/kg

SAR(1 g) = 0.767 W/kg; SAR(10 g) = 0.300 W/kg

Maximum value of SAR (measured) = 1.81 W/kg



0 dB = 1.81 W/kg = 2.58 dBW/kg

10_WLAN2.4G_802.11b 1Mbps_Bottom Face_0mm_Ch1

Communication System: UID 0, WLAN2.4GHz (0); Frequency: 2412 MHz; Duty Cycle: 1:1.017
Medium: HSL_2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.786$ S/m; $\epsilon_r = 38.623$; $\rho = 1000$ kg/m³

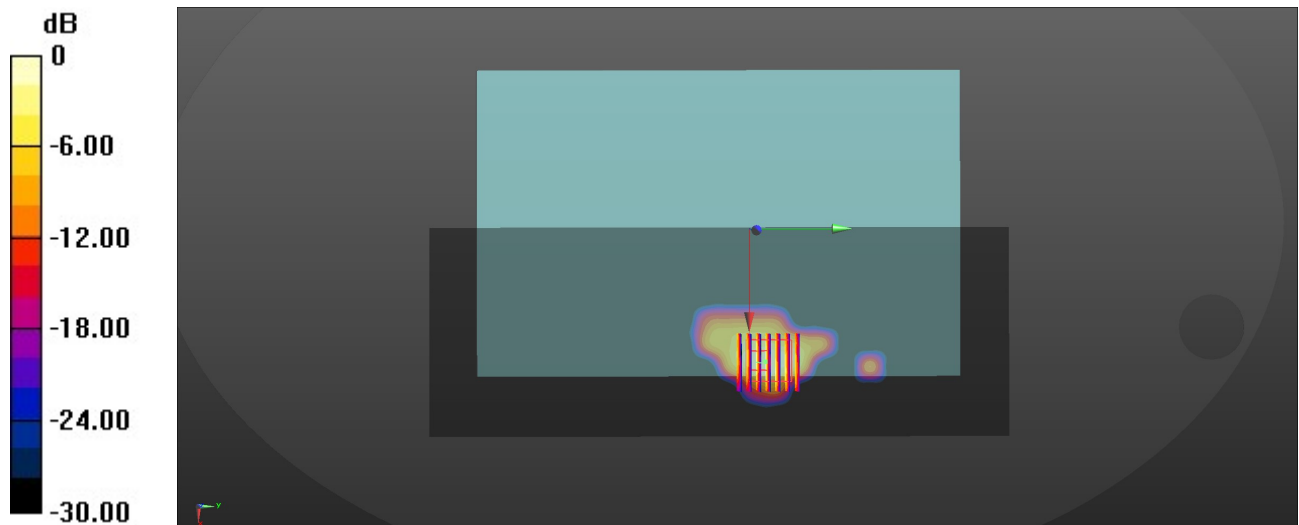
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.53, 7.53, 7.53); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x251x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.786 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.7030 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.914 W/kg
SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.125 W/kg
Maximum value of SAR (measured) = 0.627 W/kg



0 dB = 0.627 W/kg = -2.03 dBW/kg

11_Bluetooth_802.11b 1Mbps_Bottom Face_0mm_Ch78

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1.302
Medium: HSL_2450 Medium parameters used: $f = 2480$ MHz; $\sigma = 1.832$ S/m; $\epsilon_r = 38.443$; $\rho = 1000$ kg/m³

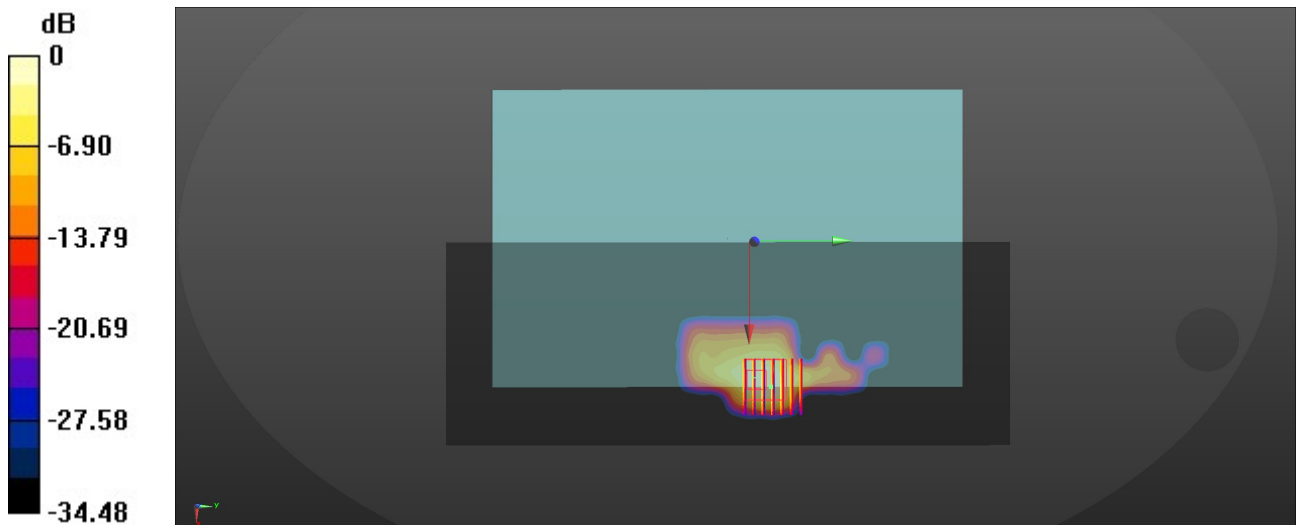
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.53, 7.53, 7.53); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x251x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.428 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.72 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.526 W/kg
SAR(1 g) = 0.117 W/kg; SAR(10 g) = 0.043 W/kg
Maximum value of SAR (measured) = 0.367 W/kg



0 dB = 0.367 W/kg = -4.35 dBW/kg

12_WLAN5G_802.11ac-VHT80 MCS0_Bottom Face_0mm_Ch42

Communication System: UID 0, WLAN5GHz (0); Frequency: 5210 MHz; Duty Cycle: 1:1.078
Medium: HSL_5000 Medium parameters used: $f = 5210$ MHz; $\sigma = 4.537$ S/m; $\epsilon_r = 36.358$; $\rho = 1000$ kg/m³

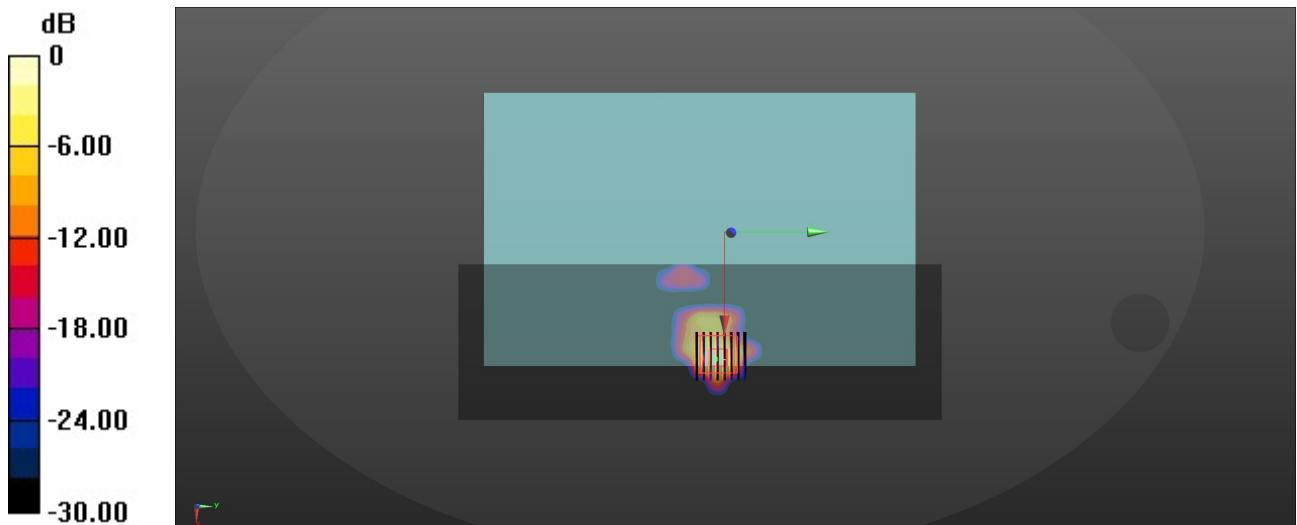
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.05, 5.05, 5.05); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x281x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.674 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 10.97 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.911 W/kg
SAR(1 g) = 0.204 W/kg; SAR(10 g) = 0.058 W/kg
Maximum value of SAR (measured) = 0.554 W/kg



0 dB = 0.554 W/kg = -2.56 dBW/kg

13_WLAN5G_802.11ac-VHT80 MCS0_Bottom Face_0mm_Ch58

Communication System: UID 0, WLAN5GHz (0); Frequency: 5290 MHz; Duty Cycle: 1:1.078
Medium: HSL_5000 Medium parameters used: $f = 5290$ MHz; $\sigma = 4.628$ S/m; $\epsilon_r = 36.241$; $\rho = 1000$ kg/m³

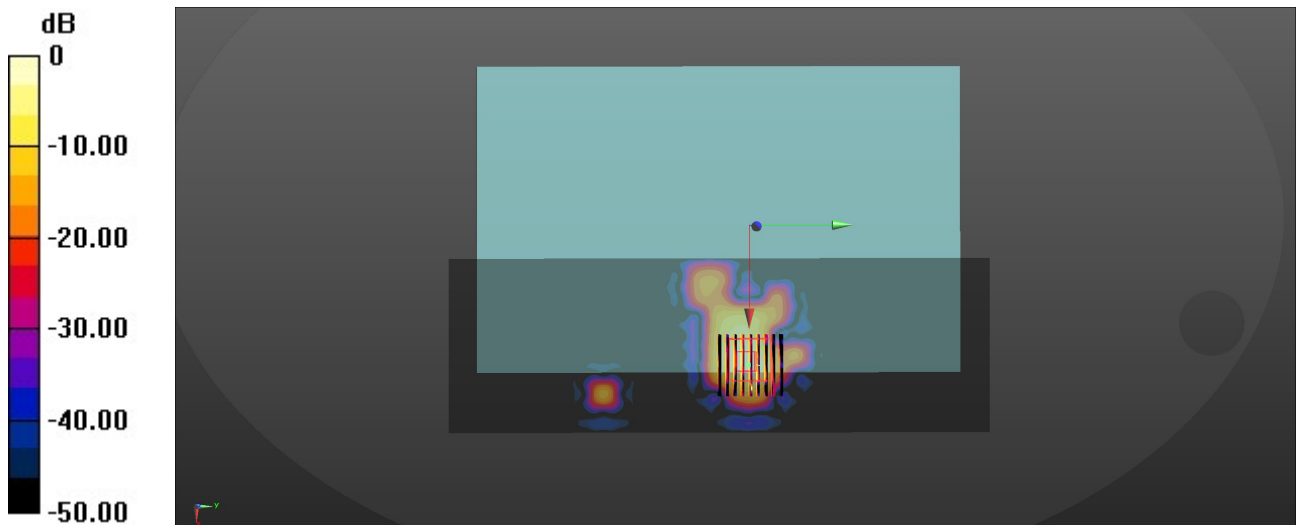
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.05, 5.05, 5.05); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (91x281x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.898 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 11.42 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.222 W/kg; SAR(10 g) = 0.057 W/kg
Maximum value of SAR (measured) = 0.624 W/kg



0 dB = 0.624 W/kg = -2.05 dBW/kg

14_WLAN5G_802.11ac-VHT80 MCS0_Edge 1_0mm_Ch106

Communication System: UID 0, WLAN5GHz (0); Frequency: 5530 MHz; Duty Cycle: 1:1.078
Medium: HSL_5000 Medium parameters used: $f = 5530$ MHz; $\sigma = 4.869$ S/m; $\epsilon_r = 35.806$; $\rho = 1000$

kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(4.69, 4.69, 4.69); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x281x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.890 W/kg

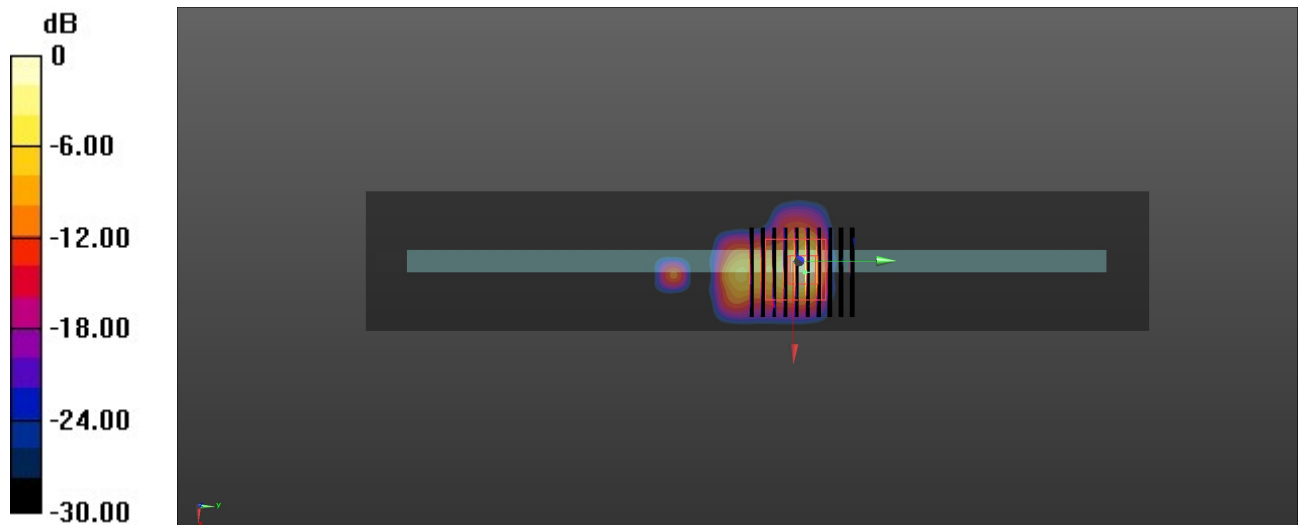
Zoom Scan (9x10x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 6.420 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.247 W/kg; SAR(10 g) = 0.047 W/kg

Maximum value of SAR (measured) = 0.806 W/kg



0 dB = 0.806 W/kg = -0.94 dBW/kg

15_WLAN5G_802.11ac-VHT80 MCS0_Edge 1_0mm_Ch155

Communication System: UID 0, WLAN5GHz (0); Frequency: 5775 MHz; Duty Cycle: 1:1.078
Medium: HSL_5000 Medium parameters used: $f = 5775$ MHz; $\sigma = 5.147$ S/m; $\epsilon_r = 35.474$; $\rho = 1000$ kg/m³

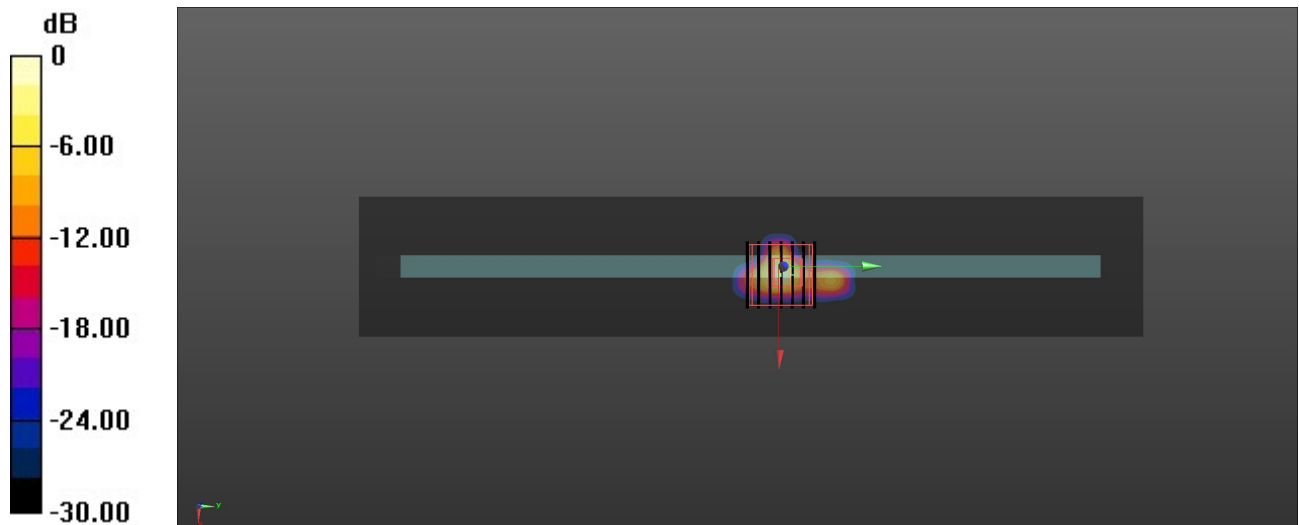
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(4.92, 4.92, 4.92); Calibrated: 2021/11/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2021/9/21
- Phantom: ELI Phantom; Type: ELI V8.0; Serial: TP-2134
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Area Scan (51x281x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.675 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 12.87 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.37 W/kg
SAR(1 g) = 0.222 W/kg; SAR(10 g) = 0.034 W/kg
Maximum value of SAR (measured) = 0.800 W/kg



0 dB = 0.800 W/kg = -0.97 dBW/kg



Appendix C. DASYS Calibration Certificate

The DASYS calibration certificates are shown as follows.



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **D835V2-4d258_May20**

CALIBRATION CERTIFICATE

Object **D835V2 - SN:4d258**

Calibration procedure(s) **QA CAL-05.v11
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **May 07, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: BH9394 (20k)	31-Mar-20 (No. 217-03106)	Apr-21
Type-N mismatch combination	SN: 310982 / 06327	31-Mar-20 (No. 217-03104)	Apr-21
Reference Probe EX3DV4	SN: 7349	31-Dec-19 (No. EX3-7349_Dec19)	Dec-20
DAE4	SN: 601	27-Dec-19 (No. DAE4-601_Dec19)	Dec-20
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

Calibrated by:	Name Jeffrey Katzman	Function Laboratory Technician	Signature
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 7, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	42.2 \pm 6 %	0.92 mho/m \pm 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.39 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	9.44 W/kg \pm 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.55 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	6.13 W/kg \pm 16.5 % (k=2)